B. Filing with MassDEP – As previously noted, **only** facilities in Massachusetts that were previously unpermitted and discharge to an Outstanding Resource Water (ORW) and High Quality Waters must submit an NOI to MassDEP. In such cases, a completed copy of the NOI must also be sent to:

Massachusetts Department of Environmental Protection
Division of Watershed Management
8 New Bond Street
Worcester, MA 01606

C. Filing with NH DES – All applicants in New Hampshire must also provide a completed copy of their NOI to NH DES at the following address:

New Hampshire Department of Environmental Services
Water Division, Wastewater Engineering Bureau
29 Hazen Drive, P.O. Box 95
Concord, New Hampshire 03302-0095

III. Suggested Notice of Intent (NOI) Format

A. Facility Information

1. *Indicate applicable General Permit for discharge* MAG640000

   NHG640000

2. *Facility Data*

   Facility Name Roaring Brook Water Treatment Facility

   Street/PO Box 59 Whately Glen Rd City Whately

   State Ma Zip Code

   Latitude 42° 27′ 47″ N Longitude 72° 38′ 56″ W

   SIC Code(s) 4941

   Type of Business Potable water treatment facility

3. *Facility Mailing Address (if different from Location Address, above)*

   Facility Name South Deerfield Water Supply District

   Street/PO Box PO 51 City So Deerfield

   State Ma Zip Code 01373

4. *Facility Owner:*
Legal Name South Deerfield Water Supply District
Email SOWSD@SOWSD.COMCASTBIZ.NET
Street/PO Box Po 51 City South Deerfield
State Ma Zip Code 01373
Contact Person Roger Sadoski Tel # 413-665-3540
Owner is (check one): Federal ____ State ____ Tribal ____ Private ____
Other (describe)
Municipal

5. *Facility Operator (if different from above):*
Legal Name ____
Email ____
Street/PO Box ____ City ____
State ____ Zip Code ____
Contact Person ____ Tel # ____

6. *Currently (Administratively) Covered Under the Expired PWTF General Permit? (Please check yes or no):*

(Yes) No

a) Has a prior NPDES permit (either individual or general permit coverage) been granted for the discharge that is listed on the NOI? (Yes) No If Yes, Permit Number MAG 640005

b) Is the discharge a "new discharger" as defined by 40 CFR Section 122.22? Yes (No)

c) Is the facility covered by an individual NPDES permit for *other* discharges? Yes (No)

If yes, Permit Number: ____

d) Is there a pending NPDES application (either individual or general permit) on file with EPA for this discharge? Yes (No)

If yes, date of submittal: ____ and Permit Number, if available ____

7. *Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water.* **Map attached?**

B. Discharge Information (Attach additional sheets as needed):

1. *Name of receiving water into which discharge will occur:* Roaring Brook

Check Appropriate Box: (Freshwater) Marine Water

State Water Quality Classification Class ____

Type of Receiving Water Body (e.g., stream, river, lake, reservoir, estuary, etc.) Stream

2. *Indicate the frequency of the discharge:*

Emergency Only Infrequent (Once/Twice a Year) Intermittent*** (Continuous)

Other***

***If Intermittent (i.e., occurs sometimes but not regularly as in batch discharge), provide # of days per year the discharge occurs ____

***If Other, explain ____

3. Describe the discharge activities for which the owner/applicant is seeking coverage, including process discharges not specifically authorized in the PWTF GP which need to be authorized for discharge (and which attain the effluent limits and other conditions of the general permit.)
(This description should include all treatment methods used on the wastewater prior to discharge including lagoons, baffles, filter presses, etc. If lagoons are used at the facility, please include the number and size of lagoons; the size and elevation of the entry pipe; the time of travel from the entry point of the discharge into the lagoon to the entry point to the receiving waters; and the length of backwash cycle for any combination of filters.)

The discharge activities are waste water (flushs + backwashs) from a drinking water filtration facility

4. Attach a line drawing or flow schematic showing water flow through the facility including sources of intake water, operations contributing to flow, treatment units, outfalls, and receiving water(s).

Line drawing or flow diagram attached?

5. Identify the source of the water being discharged:

(Surface water) Groundwater Other (describe)

6. Number of Outfalls 1 Latitude and Longitude to the nearest second for each Outfall. Attach additional pages if necessary.

Outfall # 1 Latitude 42° 27′ 47″ N Longitude 72° 38′ 56″ W

Outfall # Latitude _____ Longitude _____

Outfall # Latitude _____ Longitude _____

7. For each outfall, indicate the proposed sampling location(s) for both effluent and ambient water (when applicable) and proposed consistent times of the month for collecting samples:

Outfall # 1

In the lagoon near the discharge pipe once a week on 3 parameters, and once a month on 1 other.

Outfall #

Outfall #

C. Effluent Characteristics

1. List here and attach additional information (on separate sheet) on any water additives used at the facility. This includes chemicals (including aluminum, iron, or phosphorus-containing chemicals) for pH adjustment, dechlorination, control of biological growth, and control of corrosion and scale in water pipes.

Cationic polymer, potassium permangate and sodium hypochlorite

2. Report any known remediation activities or water quality issues in the vicinity of the discharge

3. Are aluminum compounds or polymers used as coagulants at this facility?*

Yes ✓ No

*If answer is "Yes" and the facility was *not* covered under the PWTF GP that expired on

10/2/14, additional monitoring data and information is required. **Please complete Item III.C.12.**

4. Does the facility use any alum-based products for algae control?*

Yes_ (No)

*If answer is "Yes" and the facility was *not* covered under the PWTF GP that expired on 10/2/14, additional monitoring data and information is required. **Please complete Item III.C.12.**

5. Are iron-containing coagulants used at this facility? Yes_ (No)

6. Does the facility's discharge contain residual chlorine? (Yes) No

[If Yes, EPA will calculate a Total Residual Chlorine effluent limit for your facility]

7. Does the facility provide treatment to remove arsenic from the raw water source? Yes (No)

8. a. Are phosphorus-containing chemicals added to the treated water at this facility? Yes (No)

b. If answer to 8.a. is Yes, does the facility discharge to Phosphorus-Impaired waters? Yes No

c. If answer to 8.b. is Yes, provide name of P-Impaired waterbody: _____

9. Does the facility remove radium or other radioactive substances from raw water sources to comply with drinking water standards? Yes (No)

10. Provide the reported or calculated seven day- ten year low flow (7Q10) of the receiving water 7Q10: 0.256 cfs

NOTE: For facilities that discharge in New Hampshire, the state permitting authority **must** be contacted at the address listed in Appendix VI of the PWTF GP to determine and/or confirm the 7Q10 and/or dilution factor. For facilities that discharge in Massachusetts, it is highly recommended to contact the relevant state authority (MassDEP) to determine and/or confirm the 7Q10 and/or dilution factor. Attach any calculation sheets used to support the stream flow and dilution factors. See Appendix VII for equations and additional information.

11. For *each* outfall, provide the following discharge information:

Outfall # _____

a) *Design Flow of Facility (in million gallons per day, MGD):* 1.5
This value will determine the facility's daily maximum flow limit, up to a maximum of 1.0 MGD.

b) *Discharge Flow (in gallons per day, GPD):*
Maximum Daily Flow 82768 GPD Average Monthly Flow 1031534 GPD

c) *TSS (mg/l)*: Number of samples: 52 (Minimum of 10 samples)

Maximum Daily 2.25 mg/l Average Monthly 0.46 mg/l

d) *pH (s.u.)* : Number of samples: 52 (Minimum of 10 samples)
Minimum 7.1 s.u. Maximum 7.8 s.u.

e) *Total Residual Chlorine (ug/l)*: Number of samples: 52 (Minimum of 10 samples)
Maximum Daily 0.05 ug/l
NOTE: TRC is only required for discharges which have been previously chlorinated or contain residual chlorine

12. The following section must be completed for any facility that answered "Yes" to Question III.C.3 or III.C.4 (e.g. adds an aluminum-containing chemical to the water being treated and/or discharged) **AND** was not covered under the previous PWTF GP (which expired on 10/2/14).

a) Collect, analyze and submit **12 effluent samples and 10 ambient surface water samples** from a location upstream of and not affected by the discharge. For facilities in New Hampshire and Massachusetts, each sample should be analyzed for total recoverable Al in micrograms per liter. All laboratory results shall be submitted on a separate sheet.
   - **a.** The samples shall be composite samples consisting of four grab samples taken at approximately equal intervals on a flow weighted basis during the time at which the discharge is entering the receiving water after the start of the backwash cycle.
   - **b.** For each sampling event, the effluent and surface water samples shall be collected on the same day and during a representative discharge event. The samples shall be no more frequent than weekly and, if time allows in completing the NOI, at monthly intervals and at different flow conditions. If taking the ambient water quality sample from lakes/reservoirs, the 10 samples should be composited vertically.
   - **c.** Discharge flow at the time of effluent sampling should be recorded. Flow conditions at the time of ambient water sampling should be recorded (or estimated from nearest gaging station).
   - **d.** Do not include dilution when recording the results.
   - **e.** See Section 2.1.2.3 and Footnote 12 of Section 2.1.1 for MA facilities (or Section 3.1.2.3 and Footnote 10 of 3.1.1 for NH facilities) for key information on minimum level for analysis and sufficiently sensitive test procedures.
   - **f.** Sampling data that was collected within one year of the effective date of this general permit AND that adheres to all of the requirements above may be submitted in lieu of new samples. This must be denoted with the submitted data.

b) Provide a description of control measures, chemical substitutions, waste handling methods, and operational changes evaluated and/or used by the facility to minimize the discharge of aluminum to surface waters. (Include additional sheet(s), if necessary)

D. Endangered Species Act Eligibility Information

Using the instructions in Appendix III of the PWTF GP, which of the following criteria apply to your facility?

U.S. Fish and Wildlife Service (USFWS) Criteria: (A) B C

1. If you selected USFWS criteria B, has consultation with the U.S. Fish and Wildlife Service been completed?

   Yes No

2. If consultation with US Fish & Wildlife Service was completed, was a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat received?

   Yes No

3. Attach documentation of ESA eligibility for USFWS as required at Part 1.4 and Appendix III of the General Permit. **Documentation attached?** no

4. For facilities seeking coverage under the Potable Water Treatment Facility General Permit for the *first* time, respond to the following questions to assist in ESA eligibility for NMFS:
   a) Indicate if the facility discharges into any of the stretches of the following rivers which can support or provide habitat to either Shortnose or Atlantic Sturgeon:

Merrimack River (from Essex Dam in Lawrence, Downstream (including Haverhill) to mouth of River)	Yes	No
Connecticut River (from Turner's Falls, downstream through Holyoke (including Holyoke Dam region)	Yes	No
Taunton River	Yes	No
Piscataqua River (in NH)	Yes	No

   b) Has the facility had any previous formal or informal consultation with NMFS?

   Yes (No)

   If yes, attach the results of the consultation(s). **Documentation attached?** ____

E. National Historic Properties Act Eligibility

1. Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility site or in proximity to the discharge? Yes (No)

2. Have any State or Tribal Historic Preservation Officers been consulted in this determination?

Yes (No)

If yes, attach the results of the consultation(s). **Documentation attached?** ____

3. Which of the three National Historic Preservation Act scenarios listed in Appendix II, Section III have you met?

1 2 3

F. Supplemental Information

Please provide any supplemental information, including antidegradation review information applicable to new or increased discharges. Attach any analytical data used to support the application. Attach any certification(s) required by the General Permit.

G. Signature Requirements

The NOI must be signed by the operator in accordance with the signatory requirements of 40 CFR § 122.22 (see below) including the following certification:

I certify under penalty of law that (1) the discharge for which I am seeking coverage under the general permit consists solely of a surface water discharge from a potable water treatment facility; (2) any chemicals used to treat the discharge have been identified in this NOI; and (3) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature Roger Dadoosh Date 7-24-17

Printed Name and Title Superintendent

ROGER SADOSKI

From: Ruan, Xiaodan (DEP) <xiaodan.ruan@state.ma.us>
Sent: Friday, April 21, 2017 11:39 AM
To: ROGER SADOSKI
Subject: RE: Design flow capacity
Attachments: South Deerfield 7Q10.pdf

Hi Roger,

Attached is the Streamstats report. The lat and long for South Deerfield outfall are 42.46326, and -72.64894 and the 7Q10 is 0.258 cfs.
If you would like to generate the report and check the number yourself, here is the link: https://streamstatsags.cr.usgs.gov/streamstats/ .

Use the equation for Massachusetts in Appendix VII to calculate dilution factor.
QR = 0.258cfs, QP is the same number you would put in the NOI section C. 11. a)..

If you could let me know what is the design flow in C.11.a), I can calculate the DF for you. The design flow is supposed to be the max daily flow.

Thanks,
Xiaodan

From: ROGER SADOSKI [mailto:SDWSD@SDWSD.comcastbiz.net]
Sent: Friday, April 14, 2017 9:54 AM
To: Ruan, Xiaodan (DEP)
Subject: RE: Design flow capacity

Hi Xiaodan,

Roaring Brook Reservoir

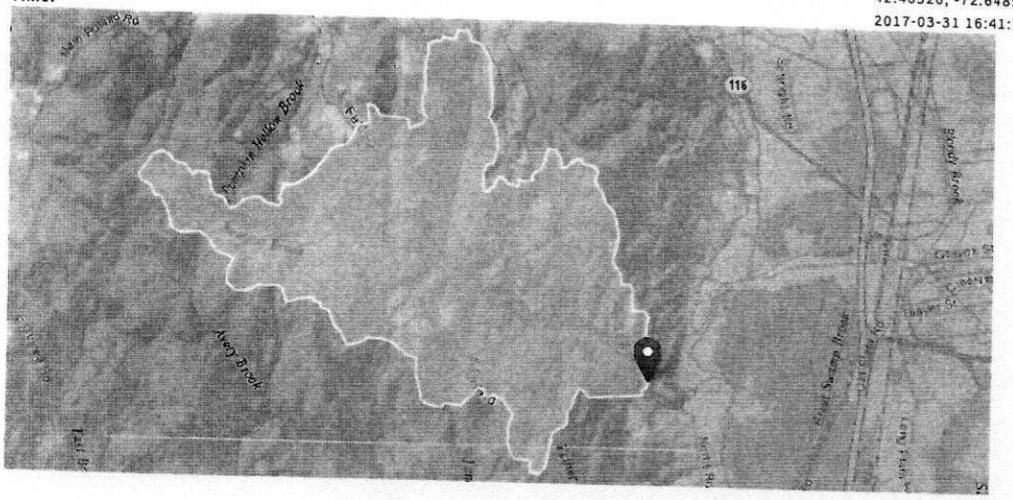
Jan 670,030
Feb 718,348
Mar 844,743
Apr 771,181
May 905,626
Jun 1,457,662
Jul 1,754,284
Aug 1,322,439
Sep 1,240,756
Oct 1,265,274
Nov 678,549
Dec 748,916

Total 12,378,408/12=1,031,534 average gallons per month

Hope that helps.

StreamStats Report

Region ID: MA
Workspace ID: MA20170331144056726000
Clicked Point (Latitude, Longitude): 42.46326, -72.64894
Time: 2017-03-31 16:41:25 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	5.4	square miles
DRFTPERSTR	Area of stratified drift per unit of stream length	0.0139	square mile per mile
MAREGION	Region of Massachusetts 0 for Eastern 1 for Western	1	dimensionless
BSLDEM250	Mean basin slope computed from 1:250K DEM	9.566	percent

Low-Flow Statistics Parameters [100 Percent (5.4 square miles) Statewide Low Flow WRIR00 4135]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	5.4	square miles	1.61	149
DRFTPERSTR	Stratified Drift per Stream Length	0.0139	square mile per mile	0	1.29
BSLDEM250	Mean Basin Slope from 250K DEM	9.566	percent	0.32	24.6
MAREGION	Massachusetts Region	1	dimensionless	0	1

Low-Flow Statistics Flow Report [100 Percent (5.4 square miles) Statewide Low Flow WRIR00 4135]

Statistic	Value	Unit	Average standard error (of either estimate or prediction)	Lower Prediction Interval	Upper Prediction Interval
7 Day 2 Year Low Flow	0.527	ft^3/s	49.5	0.172	1.55
7 Day 10 Year Low Flow	0.258	ft^3/s	70.8	0.0663	0.932

Low-Flow Statistics Citations

Ries, K.G., III,2000, Methods for estimating low-flow statistics for Massachusetts streams: U.S. Geological Survey Water Resources Investigations Report 00-4135, 81 p. (http://pubs.usgs.gov/wri/wri004135/)

B. Discharge Information Question 3.

Raw water is pumped into the filter building and a cationic polymer is added to the water. Potassium Permangante is added when necessary. The water then flows through an up flow clarifier. Then the water flows through the filter and into the clear well. At this point, sodium hypochlorite is added. The water takes approximately two hours to reach the discharge pipe. It then flows to the Roaring Brook storage tank and then out to the distribution system. Finished water from the clearwell is used to back wash the filters, usually around 11,000 gallons is used. Raw water is used to flush the clarifiers and around 3,000 gallons are used.

A filter is backwashed after 32 hours of use or it will back wash when head loss is too high. The clarifiers are flushed every 8 hours of use or when head pressure is to high. Usually the filters or clarifiers are cleaned after length of time has expired. No two things can happen at the same time. All back washers or flushes are staggered.

The back wash and flush water then goes out through a 12' pipe to the lagoons. The lagoons hold 277,310 gallons of water. The effluent first flows into one lagoon. It takes 45 minutes for a back wash to start to enter the second lagoon. At this point, the back wash is over and the discharge is over. The effluent water does not leave the second lagoon until another back wash or flush takes place.

It is very difficult to estimate the length of time is takes for the effluent to make it through the lagoon system and reach the discharge water. I believe that 24 hours is a conservative estimte.

It leaves the lagoon and flows in a pipe 400 yards to an intermittent stream, then 800 yards then to Roaring Brook.

The back wash cycle for a filter can run from 28 minutes to 41 minutes. The clarifier flush cycle is 12 minutes.

D. Endangered Species Act Eligibility
Cititerion A was chosen.

We believe that there are no endangered or threatened species in the Roaring Brook from using the endangered species list that was provided with the IPaC resource list.

IPaC

U.S. Fish & Wildlife Service

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Franklin County, Massachusetts

Local office

New England Ecological Services Field Office

(603) 223-2541
(603) 223-0104

70 Commercial Street, Suite 300
Concord, NH 03301-5094

http://www.fws.gov/newengland

Not for consultation

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Northern Long-eared Bat Myotis septentrionalis No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service[3]. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Conservation measures for birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Year-round bird occurrence data http://www.birdscanada.org/birdmon/default/datasummaries.jsp

The migratory birds species listed below are species of particular conservation concern (e.g. Birds of Conservation Concern) that may be potentially affected by activities in this location. It is not a list of every bird species you may find in this location, nor a guarantee that all of the bird species on this list will be found on or near this location. Although it is important to try to avoid and minimize impacts to all birds, special attention should be made to avoid and minimize impacts to birds of priority concern. To view available data on other bird species that may occur in your project area, please visit the AKN Histogram Tools and Other Bird Data Resources. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

NAME	SEASON(S)
American Bittern Botaurus lentiginosus https://ecos.fws.gov/ecp/species/6582	Breeding
Bald Eagle Haliaeetus leucocephalus https://ecos.fws.gov/ecp/species/1626	Year-round
Black-billed Cuckoo Coccyzus erythropthalmus https://ecos.fws.gov/ecp/species/9399	Breeding
Blue-winged Warbler Vermivora pinus	Breeding
Canada Warbler Wilsonia canadensis	Breeding

Least Bittern Ixobrychus exilis https://ecos.fws.gov/ecp/species/6175	Breeding
Olive-sided Flycatcher Contopus cooperi https://ecos.fws.gov/ecp/species/3914	Breeding
Peregrine Falcon Falco peregrinus https://ecos.fws.gov/ecp/species/8831	Breeding
Pied-billed Grebe Podilymbus podiceps	Breeding
Prairie Warbler Dendroica discolor	Breeding
Purple Sandpiper Calidris maritima	Wintering
Short-eared Owl Asio flammeus https://ecos.fws.gov/ecp/species/9295	Wintering
Upland Sandpiper Bartramia longicauda https://ecos.fws.gov/ecp/species/9294	Breeding
Willow Flycatcher Empidonax traillii https://ecos.fws.gov/ecp/species/3482	Breeding
Wood Thrush Hylocichla mustelina	Breeding
Worm Eating Warbler Helmitheros vermivorum	Breeding

What does IPaC use to generate the list of migratory bird species potentially occurring in my specified location?

Landbirds:

Migratory birds that are displayed on the IPaC species list are based on ranges in the latest edition of the National Geographic Guide, Birds of North America (6th Edition, 2011 by Jon L. Dunn, and Jonathan Alderfer). Although these ranges are coarse in nature, a number of U.S. Fish and Wildlife Service migratory bird biologists agree that these maps are some of the best range maps to date. These ranges were clipped to a specific Bird Conservation Region (BCR) or USFWS Region/Regions, if it was indicated in the 2008 list of Birds of Conservation Concern (BCC) that a species was a BCC species only in a particular Region/Regions. Additional modifications have been made to some ranges based on more local or refined range information and/or information provided by U.S. Fish and Wildlife Service biologists with species expertise. All migratory birds that show in areas on land in IPaC are those that appear in the 2008 Birds of Conservation Concern report.

Atlantic Seabirds:

Ranges in IPaC for birds off the Atlantic coast are derived from species distribution models developed by the National Oceanic and Atmospheric Association (NOAA) National Centers for Coastal Ocean Science (NCCOS) using the best available seabird survey data for the offshore Atlantic Coastal region to date. NOAANCCOS assisted USFWS in developing seasonal species ranges from their models for specific use in IPaC. Some of these birds are not BCC species but were of interest for inclusion because they may occur in high abundance off the coast at different times throughout the year, which potentially makes them more susceptible to certain types of development and activities taking place in that area. For more refined details about the abundance and richness of bird species within your project area off the Atlantic Coast, see the Northeast Ocean Data Portal. The Portal also offers data and information about other types of taxa that may be helpful in your project review.

About the NOAANCCOS models: the models were developed as part of the NOAANCCOS project: Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf. The models resulting from this project are being used in a number of decision-support/mapping products in order to help guide decision-making on activities off the Atlantic Coast with the goal of reducing impacts to migratory birds. One such product is the Northeast Ocean Data Portal, which can be used to explore details about the relative occurrence and abundance of bird species in a particular area off the Atlantic Coast.

All migratory bird range maps within IPaC are continuously being updated as new and better information becomes available.

Can I get additional information about the levels of occurrence in my project area of specific birds or groups of birds listed in IPaC?

Landbirds:

The Avian Knowledge Network (AKN) provides a tool currently called the "Histogram Tool", which draws from the data within the AKN (latest,survey, point count, citizen science datasets) to create a view of relative abundance of species within a particular location over the course of the year. The results of the tool depict the frequency of detection of a species in survey events, averaged between multiple datasets within AKN in a particular week of the year. You may access the histogram tools through the Migratory Bird Programs AKN Histogram Tools webpage.

The tool is currently available for 4 regions (California, Northeast U.S., Southeast U.S. and Midwest), which encompasses the following 32 states: Alabama, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North, Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin.

In the near future, there are plans to expand this tool nationwide within the AKN, and allow the graphs produced to appear with the list of trust resources generated by IPaC, providing you with an additional level of detail about the level of occurrence of the species of particular concern potentially occurring in your project area throughout the course of the year.

Atlantic Seabirds:

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAANCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Facilities

Wildlife refuges

Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGES AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Filter back wash cycle

Every 1920 min each filter is backwashed or on high-headloss

Backwash Timers sec.

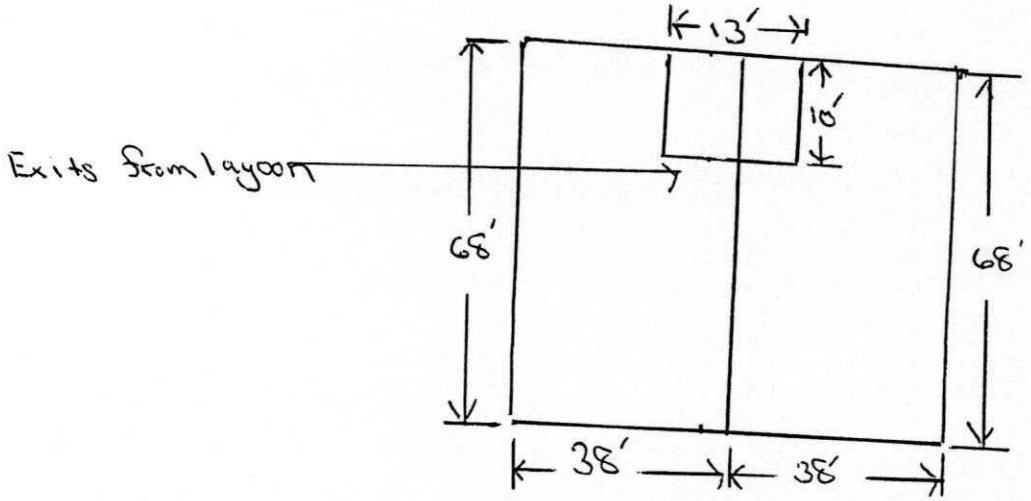
Drain down	600
Air + water	200
Low rate	15
High rate	600
Min. FTW	30
Max FTW	1200

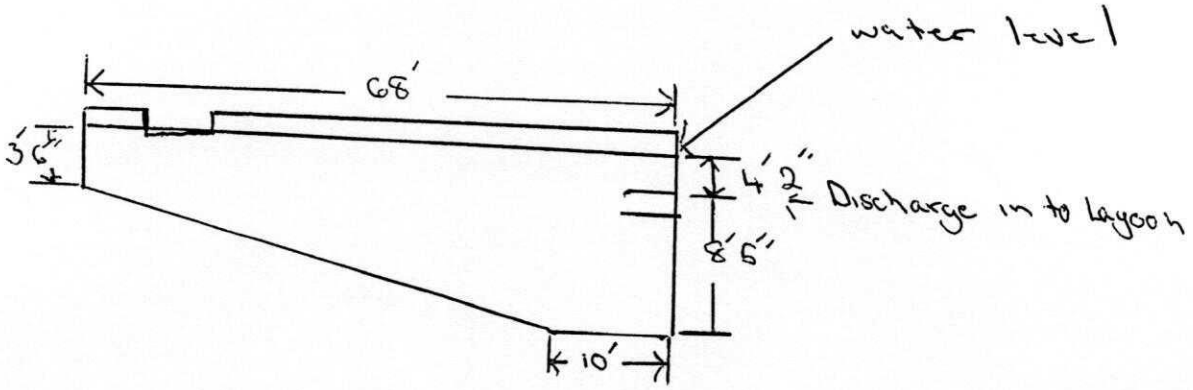
Flush Interval

Every 480 min. each clarifier is flushed or on high-pressure

Flush timers sec.

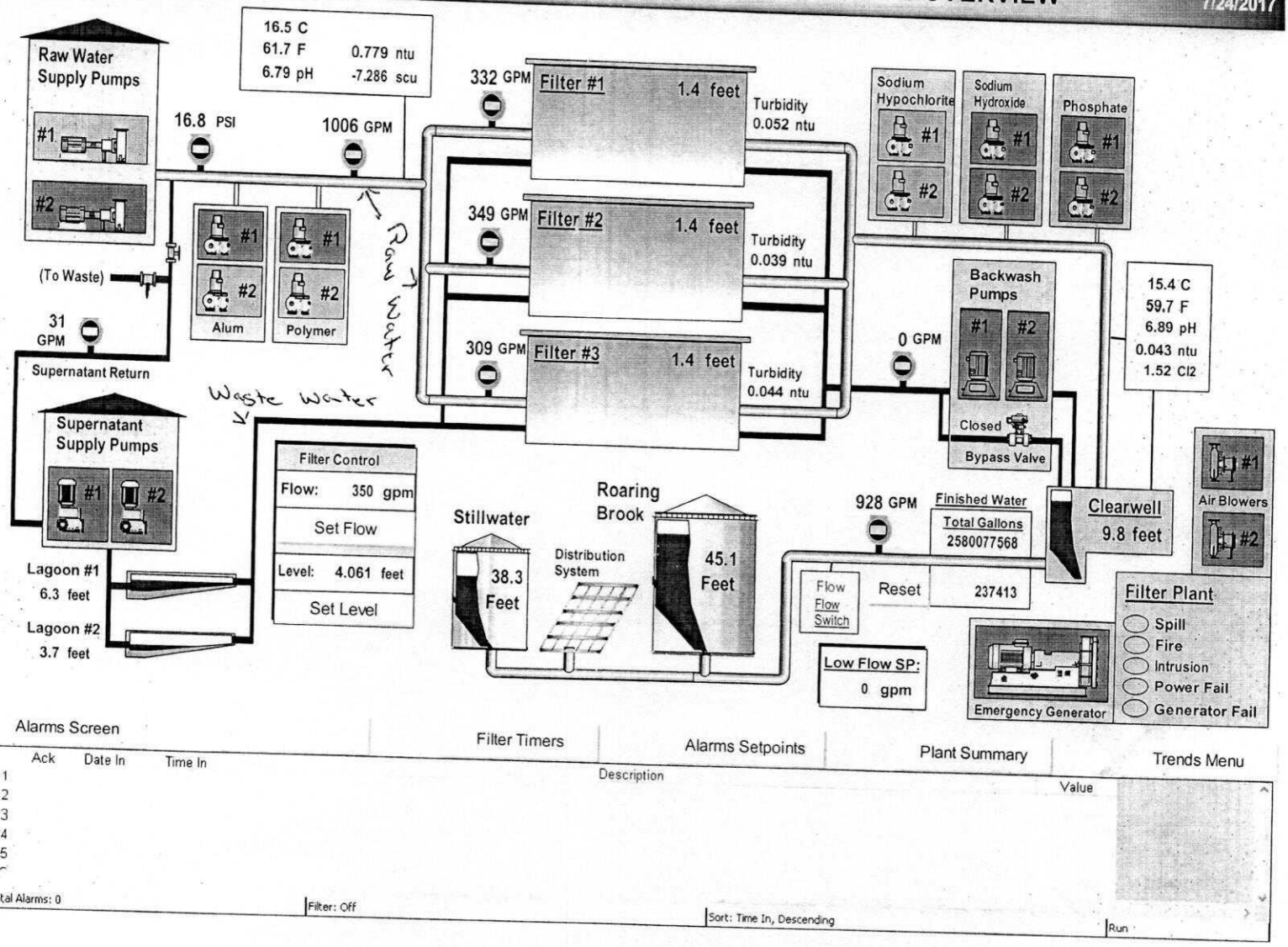
Fluidize	80
Flush	580
Rinse waste	520
Trough drain	40





SOUTH DEERFIELD, MA WATER FILTRATION SYSTEM -- OVERVIEW

7/24/2017



Alarms Screen | Filter Timers | Alarms Setpoints | Plant Summary | Trends Menu

	Ack	Date In	Time In	Description	Value
1					
2					
3					
4					
5					

Total Alarms: 0 | Filter: Off | Sort: Time In, Descending | Run